C
M66u C
1872

The University of Minnesota,

Saint Anthony's Falls,

June 25th, 1872.

To the Honorable, the Board of Regents:

In obedience to your resolution of March 26th ult., a copy of which is annexed, I have the honor to submit the following matter relating to the plan of organization and the courses of study. Inasmuch as the resolution, by implication, seems to re-open the question of organization, it appears to me to be both proper and respectful, although my views are on record in many reports and other documents, to put the Board in possession of an orderly statement of the plan itself, of the conditions which seemed to justify its adoption, and of some facts and opinions which might, upon occasion, be adduced in defense of it.

I am, very respectfully,

Your obedient servant,

WILLIAM W. FOLWELL.

"*Resolved*, That the President and Faculty of the University individually be, and they are hereby, requested to report in writing, direct, at the next meeting, their opinion of the condition and progress of the University in its various departments; and, if any occur to them, that they make such suggestions and recommendations as they may deem important regarding the present plan of organization and the various courses of instruction as now established."

Passed March 26, 1872.

I.

General Considerations had in view at the time the question of organization came up.

1. The great awakening to the supreme importance of education in general. Witness, the development of the free schools, the munificent gifts in the aid of education, of Cornell, Peabody, Pardee, Packer, Williston and others, and the State and National grants to higher institutions.

2. An immense increase of youth demanding higher education:—not, however, of those looking forward to the so-called "learned professions,"* but a number much greater preparing to be engineers, merchants, architects, chemists, miners and metallurgists, pharmaceutists, dyers, manufacturers, merchants, navigators, journalists, naturalists, astronomers, and last, not least, horticulturists and agriculturists; wherefore

3. The general consent that the old college, however admirably suited to other wants, does not meet the demands of these classes. In proof of the correctness of this view,

4. The establishment of numerous polytechnic schools, such as, e. g.,

The Rensselaer Polytechnic Institute, Troy, N. Y.

The Sheffield Scientific School of Yale College, New Haven, Conn.

The Massachusetts Institute of Technology, Boston.

The Columbia College School of Mines, New York city.

The Stevens Institute of Technology, Hoboken, N. J., &c., &c., &c.; Likewise

5. The grant by Congress in 1862 of 9,000,000 acres of public lands to endow colleges, intended to provide "liberal and practical education for the industrial classes"; and under this grant the establishment of Agricultural and Polytechnic Colleges in many States: such as, (e. g.)

The Cornell University,

The Kentucky University,

The Illinois Industrial University,

The Agricultural Colleges of Massachusetts, Michigan, Pennsylvania, &c., &c., &c.—but further,

6. The voluntary exile of hundreds of our young men to foreign countries in search of that culture not to be had on this side of the Atlantic.

7. The importation, chiefly by these persons and through their writings, of foreign University ideas, traditions, customs and terminology, which, falling in with the general sentiment favoring a broader development of our higher education, had led to

8. The establisnment of many institutions called *Universities*, in expectation "of things hoped for."

*See appendix A I.

9. The [illegible]al, acknowledged failure of our Universities *to deserve that title*, owing [illegible]iefly to lack of material, i. e., of students properly fitted for University work. Therefore,

10. The need, as a condition precedent to the existence of a genuine University, of a large number of academic schools of high rank, capable of fitting students to enter upon the studies properly belonging to the University. Such schools, called "secondary," exist in all countries in which Universities exist. See Appendix A.

11. An EXCESSIVE NUMBER OF COLLEGES, insufficiently endowed, indifferently officered, scantily attended, "hindering rather than aiding one another by their jealous rivalries, and wasting the most precious resources of the country."

12. In these Colleges a general breaking down of discipline, and a cheapening of degrees, things not to be prevented in institutions demoralized by ruinous competition.

13. In these colleges also, an overloading of the course of study in the attempt to adapt the college, with its single curriculum, to modern demands. But

14. The strong and decided reaction against the tendency to overcrowd the college course, coinciding with

15. A relaxation from the traditional custom of forcing students over a single course, as shown in

16. The addition of so-called "*scientific courses*" of study into many colleges and Universities, or in

17. The introduction of so-called *optional* or *elective* studies and courses of study: in connection with which

18. The remarkble fact that the end of the second (or Sophomore) year of the old college course has been very generally pitched upon as the proper point at which to admit optional studies and courses, (see Appendix B), thereby indicating that

19. *Some* University work proper begins *now* in America (and will for a long time continue to begin) with the Junior year, and that *studies should be assorted accordingly*. Wherefore

20. Universities must provide for dropping the work of the first two college years, belonging by its nature to the secondary schools. See Appendix C.

21. The higher secondary education embracing the first two college years, has been found to be an excellent preparation for the "industrial professions," and it is also sufficient for the mere *practitioner* in the so-called learned professions, although in fact

22. The law and medical schools, receiving students with merely the primary education of the common school, are turning out under the spur of sharp competition hundreds of graduates every year, without culture, without science—to the great infamy of the professions. Wherefore

23. The impending necessity that some public endowed institution not depending upon tuition money for support, should by requiring as the *minimum* preparation the *secondary* education indicated, rescue the legal and medical professions from the low condition into which they have confessedly fallen.

24. For lack of suitable secondary or academic schools to prepare students, the Agricultural Colleges have very generally been forced down into the secondary field, and been obliged to offer courses of study made up mainly of academic branches with merely a *seasoning* of agricultural studies. Whereas

25. The Agricultural College ought to be a special professional school, analagous to law, medical, and engineering schools, to which students shall bring a sufficient preparation of general and disciplinary studies, and it is *only* as *such* that the Agricultural College can form a co-ordinate department of the *University*.

26. The actual foundation and maintenance of Universities by *States* is an experiment, the success of which is not expected by some, and not desired by many others.

27. The Christian Church—under various denominations—has immense investments in higher education, and under her auspices

28. Private individuals and corporate bodies will continue to endow and support educational establishments. Nevertheless there exists

29. A powerful tendency in the direction of comprehensive—not to say exclusive—state and national effort to control education and to develop complete systems of schools culminating in Universities. Wherefore,

30. The evident need of such an *organization of education* by competent authority as will invite and ensure the co-operation of all parties interested in the business and secure economy and efficiency; accordingly

31. The State University should be so organized as to form an integral part of a State system of public education, while free scope and room should be allowed for the legitimate efforts of all private and corporate agencies.

32. The higher education of women,—a problem not to be put aside when public funds form the endowment of a proposed University.

II.

Local Considerations: State of Minnesota, A. D. 1870.

1. An act of the Legislature approved February 18th, 1868, "Re-organizing the University and establishing an Agricultural College therein"—

2. The Board of Regents required by this act to establish "*five or more Colleges* or *Departments;* that is to say,

"A Department of Elementary Instruction;

"A College of Science, Literature and the Arts;

"A College of Agriculture and the Mechanic Arts;

"A College or Department of Law;

"A College or Department of Medicine."

3. An endowment of public lands, consisting on the one hand of University lands proper and on the other of "Agricultural College" lands in the proportion of about 3 to 5.

4. An evident and undoubted disposition on the part of the Board of Regents to devote the funds to accrue from the Agricultural College lands with the utmost fidelity to the object named in the act of endowment passed by Congress July 2, 1862. As an earnest of this disposition,

5. The purchase of a farm for experimental purposes and the election of professors of Agriculture, Military Science and Civil Engineering.

6. A provisional organization, in some respects excellent, but lacking in thoroughness—the various departments forming rather a mere association than an organism. Indeed the separate establishment of the colleges or departments demanded by the statute was quite lost sight of. The printed report contained some admirable and striking suggestions. [See Appendix D.]

7. FREE TUITION in all departments; small annual charge for "incidentals" only.

8. No dormitory system, but students of both sexes left free to choose their residences in the city.

9. A Faculty of ten persons, including the President.

10. An attendance of 185 students — about one-half of them young ladies.

11. Thirteen students, ranking provisionally as Freshmen, of whom probably but five were of that rank: all the rest below these.

12. A large number of students looking forward to polytechnic studies, a great demand for instruction in the German language, and an unexpectedly large number of classical students.

13. But one denominational college, partially developed, in actual existence in the State.

14. A very small number of fitting schools (3–5) in private or denominational hands and all young and feeble.

15. A considerable number of excellent public High Schools, ably officered and ready to co-operate actively with the University. but as yet not having generally adopted courses of study preparatory to it. Hence

16. The evident necessity of so planning the work of the University as to begin where the High Schools should leave off.

Such was "THE SITUATION" when in June, 1870, the question of organization came definitely before the Board of Regents.

III.

THE PLAN ACTUALLY ADOPTED was the following, being the report of a special committee :

THE UNIVERSITY OF MINNESOTA.

PLAN OF ORGANIZATION.

"There shall be established in the University of Minnesota, five or more Colleges or Departments; that is to say, a Department of Elementary Instruction; a College of Science, Literature and the Arts; a College of Agriculture and the Mechanic Arts, including Military Tactics; a College or Department of Law; also a College or Department of Medicine."—[Laws of Minnesota, 1868.

" * * * to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the *liberal* and *practical* education of the industrial classes in the several pursuits and professions of life, without excluding other scientific and classical studies, and including military tactics."—[Act of Congress granting land for Agricultural Colleges, 1862.]

A three years preparatory department has been in operation since 1866. Twenty students, most of whom have passed through this Department, are now pursuing the studies of Freshmen in Science or Arts.

It is proposed to drop, as soon as may be practicable, the first year of this preparatory course, and to add to the two remaining years, other two

years, corresponding to the Freshman and Sophomore years of our ordinary Colleges, thus forming a Department to be called "The COLLEGIATE DEPARTMENT," of which the prominent features shall be these, viz;

1. Two or more parallel courses of general scientific and classical studies, designed to prepare students either to enter one of the professional schools, or the Higher Academic course of the University.

2. These courses to be open to both sexes alike.

3. A thorough system of discipline, by means of marking system, military drill, gymnastics, &c.

4. All students to be instructed in those principles of Agriculture (including Horticulture,) the Mechanic Arts, and Hygiene, which every "educated man" or woman needs to know.

5. No degrees to be conferred at the end of these courses, but ouly a certificate of fitness to proceed with some proper University course.

6. A shorter course of scientific studies for students preparing to enter the Colleges of Agriculture, Medicine, &c.

7. Tuition in this Department to be FREE.

8. QUALIFICATIONS FOR ADMISSION: Reading, Writing, Spelling, Arithmetic, and elements of Algebra, English Grammar and Geography, Latin Grammar for classical students. After —— years Latin Grammar and Physiology for all. Age, 14 years.

9. STUDIES—MATHEMATICS,—Algebra, Geometry, Trigonometry, Mensuration (includes Surveying), and Analytical Geometry.

SCIENCES—Chemistry, Physics, Mineralogy, Botany, and Zoology, Geology, Physiology, Geography, and Astronomy. Of these the nomenclature and elements.

LANGUAGES—English (including Grammar, Rhetoric and Logic,) Latin, Greek, French, German, Scandinavian, (any one or any two, if the teaching force can be made strong enongh.)

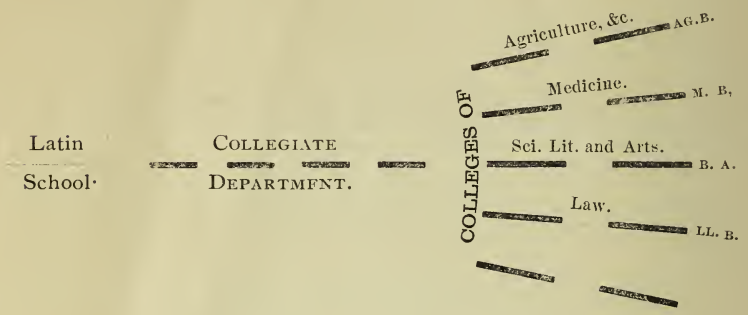
OTHER EXERCISES—Military Tactics, Gymnastics and Calisthenics, Drawing, Elocution, &c. Lectures on Agriculture and the Mechanic Arts, and Hygiene.

The theory of this Collegiate Department is, that the student having successfully pursued one or other of its prescribed courses, will be suitably prepared to enter the "College of Science, Literature, and the Arts," or the College of that profession to which he intends devoting his life. It is too much to ask now, in a new country, that candidates for Agriculture, Law, Medicine, or Business, shall generally have taken the degree of Bachelor in Arts.

It is not thought necessary to enlarge upon the details of the organization of the professional and technical schools, the number and kinds of which must depend upon the means of the University and the public demands. The first of them to be organized will be that of "Agriculture and the Mechanic Arts." The Higher Academic Department will correspond nearly with the Junior and Senior years of the American Colleges, except that there shall be entire academic freedom in the selection of courses. *No degrees* shall be conferred except after successful examinations, aud that to some extent upon subjects upon which no direct instruction shall have been given.

It is a part of the plan that from year to year some branch or branches shall be dropped off the lower end of the Collegiate courses, so that at length, the whole Department having been relegated to the schools below, shall "expire by limitation," leaving the federated classical, scientific and professional schools of the University proper. In fact the Collegiate Department is intended to be a model "Secondary School."

The following diagram will suggest, though inadaquately,* the relattions of the Depa:tments:



The essential features of the plan appear to be:

1. That while offering the old college course and discipline in its best form to the literary and professional classes, the University will provide for the industrial classes that "liberal and practical education" contemplated in the laws which have conferred her endowments.

2. The separation of the natural epochs of secondary and superior education, and the ultimate liberation of the University from the elementary work belonging to the former. Coinciding with this separation, an advantageous assortment of studies, methods and discipline suitable to the two periods respectively. As a further result

3. The simplification of the question of "mixed education."

4. The actual elevation of the professional schools, by requiring of candidates for degrees a *good* general education, as a condition for entrance, while, not insisting in theory on the impossible demand that *all* should have gone over the whole of the old College course.

5. The elevation of the Colleges of Agriculture and the Mechanic Arts to equal rank and standing with the Law and Medical Colleges, and the separation of the studies and exercises properly belonging to them, from the elementary branches taught, or which should be taught, in the primary and secondary schools, and which it is not the business of *Colleges* to teach.

---

* The inadequacy of this diagram consists in this: that according to it, students looking torward to professional or technical studies, are apparently expected to give up work "in Arts" at the close of the Collegiate Department. They are, indeed, allowed to do so, but the University Course in Arts is most urgently recommended to all who can by any reasonable means and sacrifices attain to it.

6. That while proposing to provide instruction on the most liberal scale in all subjects proper to be taught in a genuine University, the institution shall not offer an unlimited "option" of studies, but rather a suitable variety of well-ordered courses of study, leading to appropriate degrees.

7. The total abolition of all honorary degrees.

8. A close and organic connection with the system of public schools, permitting and inviting the co-operation of all private and corporate institutions. "*The University begins wherever the High School leaves off.*"

9. That while the main features of the plan may remain unchanged, it admits of great freedom in the arrangement of details to suit varying conditions of times and circumstances.

10. A faithful adherence to the letter and spirit of the laws, state and national, which have established and endowed the University, and which contemplate it as a *federation* of literary, scientific, professional, and technical or industrial *Colleges*, each imparting liberal and practical education.

NOTE.—It is a necessary corollary of this plan of organization, that the University work be extended beyond the baccalaureate graduation, as soon as may be practicable, by the addition of studies or courses of study leading to the master's degree or the doctorate.

On the 12th day ot July, 1870, a code of by-laws was adopted, putting the foregoing plan into actual operation. For a summary of these, as since modified in some particulars, see Appendix E.

IV.

OPINIONS OF DISTINGUISHED AMERICAN EDUCATORS AND OTHERS.

[It is proper to remark that most of the following opinions were furnished in answer to a printed circular letter issued in February, 1870, setting forth the then proposed plan.]

President Porter and others, of Yale College:—"The undersigned having had their attention called to the proposed organization of the University of Minnesota, as set forth by President Folwell, have been impressed with its adaptation to the wants of a new State, its harmony with the work of other educational institutions in Minnesota, and its just recognition of the value of literary, scientific and professional culture."

(Signed,) NOAH PORTER, President of Yale College.
D. C. GILMAN,
WM. D. WHITNEY,
Professors of Yale College.

The undersigned agree with the foregoing expression of opinion.

(Signed) JAMES HADLEY, Professor of Greek,
GEORGE F. BARKER, Professor of Chemistry,
WM. H. BREWER, Professor of Agriculture,
THOMAS R. LOUNSBURY, Professor of English.

President Hopkins, of Williams College:—"The general plan seems to me judicious, and I cannot think you will find difficulty in adjusting it to your wants and means as they shall be revealed."

President White, of Cornell University:—"Your plan is interesting, and in view of the peculiarities of your intermediate education in the State, seems to be excellent."

Hon. Horace Webster, late President of the College of the city of New York:—"I like your plan and course of study as given in your circular."

President Runkle, of the Massachusetts Institute of Technology:—"I have looked over the documents you were good enough to send me, with much interest, and feel sure that you are on the right track. * * * You are building up a University, and all subjects should be approached in the most catholic spirit."

President Frieze, of the University of Michigan:—"I sincerely hope that you may be able to realize your plan for the development of a University. I can see no deficiency in it. * * * I can see that you and your coadjutors must have infinite faith and patience, and be contented with very gradual and slow progress, in the filling up and complete carrying out of the design, but it is certainly correct in principle; and I am convinced that America will never have a University until some of our institutions adopt a course similar to that you propose."

President Coppee, of Lehigh University, writes:—"The general system strikes me as just and good."

President Jackson, of Trinity College, Hartford:—"I like the general scheme of your University. * * * As you are beginning anew, and have not old systems to overthrow, you could not do better, so far as practical education is concerned, than to approximate your system as closely as your circumstances will allow to that which is so happily developed, and in such successful operation in Prussia.

President Morton, of the Stevens Institute of Technology:—"I can heartily approve of your course."

President Read, of the University of Missouri:—"Your plan meets my entire approval. * * * You have the correct view of agricultural education."

President DeKoven, of Racine College:—"You have my thanks for the noble plan you have so clearly advanced."

President Angell, of the University of Vermont, (now of the University of Michigan,) says:—"A great point will be gained when we have carried secondary education up to the mark you have set. I cannot but applaud your courage in attempting the experiment in a new State like yours. * * * I do most earnestly wish the highest measure of success to your praiseworthy effort."

President Chadbourne, of the University of Wisconsin (now of Williams College):—"Your plan shows that you understand the situation fully, and that your object is to organize the University to meet the present wants of the State, giving it, at the same time, the conditions of growth as new demands are made." * * * I like the plan because it seems to me to aim at making the University supplement the common schools; and it should not shrink from humble work, while that is necessary on account of the defect of the schools."

Dr. J. M. Gregory, President of the Illinois Industrial University:—"You know I am not an extremist, any more than yourself, and I most heartily approve of your plans, which have for their aim to hold fast all that is good in the past, while you gain all the new good the present offers."

Hon. Henry Barnard, late U. S. Commissioner of Education:—"It has been a favorite thought of mine for years, to engraft the Polytechnic School, as you will see it developed in Zurich, Carlsruhe, and other points, on to our American High Schools and Colleges, as you have done."

Rev. A. P. Peabody, D. D., of Harvard University:—"I want to express my sincere and gratified interest in the plan of your University. I think you have placed your elective system just where it ought to stand. Up to the term corresponding to the Sophomore year, the required course will no more than fit a student to make an intelligent and judicious choice, and the whole previous period is needed for studies in which every student ought to be a proficient."

Rev. Dr. Wilson, of Cornell University, Professor of Mental and Moral Philosophy:—"I express my approval of it in general without reserve."

* * * It would enable us to put the first and second year men—preparing for the University courses proper,—under a regimen and training such as boys need, and at the same time allow the University men the liberty for which men only are fitted.
* * * It would allow us in practice to take advantage of the difference between the recitation and the lecture systems, and to use the former almost exclusively in the preparatory or Collegiate course, and to make the most of the lecture system in the University course where alone it can be used with advantage, and where it is incomparably superior to the recitation system. [See Appendix F.]

Rev. Dr. Kendrick, of the University of Rochester, Professor of Greek: "I am glad to see your young State adopting a plan so comprehensive and liberal. * * * The general plan seems to me unexceptionable and excellent. The thousand questions of detail will have to be settled by experience."

Major J. H. Whittlesey, of Cornell University, Professor of Military Science:—"I think your plan admirable, because it takes existing circumstances in your State as they are. It preserves the lines of demarcation between the different stages of instruction, and can adapt its methods to the requirements of each, and it maps out the chart for whatever of growth and development, as a true University, the people of your State may require."

Professor J. W. Chickering, of the National Deaf-Mute College, Washington, D. C.:—"I have to say that examination and reflection have led me to regard your plan of organization as admirably suited to its purpose. It has the rare merit of combining a practical basis of organization for an institution in its infancy, with opportunity for unlimited expansion in the future. * * * I am greatly pleased with the flexibility of its relation to the whole common school system of the State. * * * a very valuable contribution toward the solution of the various educational problems offering themselves alike to the wise educator and the thoughtful legislator."

Dr. Asa Gray, of Harvard University, Professor of Botany:—"I can say in general, that your plan seems to me well considered, and we wish you every success."

Dr. Charles A. Joy, of Columbia College, Professor of Chemistry:—"The plan of development, or the method of evolution of the studies, invented by you, is the best I have seen. * * * You give due importance to classical culture, and you make room for the on-coming army of science."

Dr. E. W. Hilgard, of the University of Mississippi, Professor of Agriculture:—"I have read attentively, and with great satisfaction, the various documents concerning the proposed organization of your University. * * * I cannot omit to express to you, in general, my entire concurrence in your views."

Dr. Willard F. Rising, of the University of California. Professor of Chemistry:—"I do not hesitate to approve your plan; and I shall look forward to good results from it."

Professor J. Montgomery, of Woodstock, Ontario:—"I am pleased with your plans.

"I like the Collegiate Department, because it covers just the ground it should cover; it secures discipline to the pupil just when he needs it, and it carries him to a point where he may be allowed to use his own choice. Academical education is the great need of the country at the present time. * * * No doubt you do well to drop the subjects taught in this department as soon as they can be taught well in the Union and High Schools. * * * Your plan far surpasses all others in that it provides for all classes. I am much pleased with the plan of separating the Collegiate and University courses at a point corresponding to the end of the Sophomore year."

Professor Albert S. Wheeler, of Cornell University;—"Your plan is very sound and very thorough, (possibly too thorough for Western demands,) but none too thorough for the demands of deep and liberal

scholarship. * * * If it is carried out it will secure your State a real University. The most striking feature of the plan, it seems to me, is its flexibility."

Hon. J. D. Cox, of Cincinnati, O., Trustee of the University of Cincinnati:—"I find that we are working in very nearly the line marked out by you, and with the same central idea of the University course. We hope to have some day, in Cincinnati, a continuous hierarchy of schools, reaching from the primary upwards by regular gradations, branching into parallel courses of technical and special study as we ascend.

Hon. John Hancock, Superintendent of Schools, Cincinnati, O.:—"From the examination I have been enabled to give your plan for your University, I judge it to be well adapted to the wants of your people. We have in contemplation the establishment of a University for our city, and the same question is pressing upon our attention which you discuss in your report. We have two High Schools, and the problem is to so arrange their course of study as to cover *about two years of the usual College course, and gradually elevate that standard in future years*, so as finally to complete the ordinary College curriculum in these schools, and thus render it possible to make our institution a University in fact as well as in name.

"We have some among us who insist that we shall at once attempt to establish a full-fledged University on the German plan. Such a course seems to me, in our condition of society, utterly impracticable. Such an institution will require in this country some time to grow. To such a growth your plan very admirably adapts itself. * * * We already carry pupils through the Freshman year.

Professor Ira Moore, Principal of the Normal School at St. Cloud:—"Your plan of the University is before me, and pleases me much, and in no one feature so much as that it promises to be, not like our Eastern institutions, a College devoted to the specialty of languages, with departments for other studies tacked on as appendages, but a University proper, giving equal scope and honors to all the departments of learning. * * * I am glad that women are to be admitted to all the privileges of the institution. This certainly is as it should be."

Hon. Wm. T. Harris, Superintendent of Schools, St. Louis, Mo.:—"Your views and plans seem to me to be very catholic and very practical."

Professor J. W. Stearns, of the University of Chicago;—"It seems to me that you have made a move in the right direction, in carrying the work of secondary education forward to the close of the present Sophomore year. This, I am convinced, is the true way of meeting the rival claims of the old and new education. 'We must elevate our standard' all the Colleges are saying. You have commenced by putting yours where it ought to be; and by clearly avowing your purpose, and by showing how it is to be accomplished, you have won half the battle. Success to you in your efforts. I shall watch the history of your progress with confidence and interest.

John T. Wheeler, A. M., Latin Master in St. Paul's School, Concord, N. H.:—"However I believe in discriminating now between the University and College work, heretofore partially confounded in the heterogeneous curriculums of our Colleges. Let the Freshman and Sophomore work be relegated to the schools, and a year be added to the University Course; and then, only, I think, can our Higher Education be developed."

Rev. W. W. Washburn, late Principal of the Preparatory Department of the University of Minnesota:—"In your scheme of organization, you have comprehended the actual situation of affairs, and provided for the wants of that new State very fully. You have crystallized and put into admirable form a thought that has often presented itself to my mind, i. e., that the University courses branch at the close of the Sophomore year. * * * I feel very confident that your plan will succeed, and that it will commend itself to the judgment of all who are acquainted with the wants of our new States."

Hon. Horace Capron, late Commissioner of Agriculture;—"Your views on the comprehensive education to be expected at what is strictly a University, will generally be adopted as sound. Our Agricultural Colleges should be *gradually* developed with a peculiar organization, adapted to the demands of the times and to the wants of our Agriculture.

Rev. W. J. Beecher, Professor of Hebrew in the Theological Seminary, Auburn, N. Y.:—"But, all suggestions apart, I believe that your plan, *just as it is*, is a good plan, if not the best, and that it *will work*, and will be popular.

Hon. C. K. Davis, U. S. Dist. Attorney, St. Paul:—"I am impressed with the conviction that your plan is an excellent one in its general scope."

Professor Wm. F. Phelps, Principal of the First State Normal School, Winona;—"I have studied with much interest the courses of study and plan of operations laid down for the University of Minnesota. From these examinations I feel prepared to say that they seem to me to be well considered, judicious, and in harmony with the most enlightened views of Higher Education, as entertained by our best thinkers. Time and experience may make minor changes in details expedient, but on the whole your plans are, I believe, most wisely conceived."

Professor Jas. R. Boise, Dept. of Greek, University of Chicago:—"You have a noble work before you, and I am glad you understand so well the importance and the nature of your task. Your views appear to me to be enlightened and liberal."

Suggestions as to the Future Development of the University.

The law of February, 18, 1868 gives the Board of Regents unlimited power to establish Colleges or Departments in the University. A subsequent amendment authorizes them to dispense with the "Department of Elementary Instruction," so fast and so far as may to them seem just and proper.

1.

The College of Science, Literature and the Arts should remain, as a higher sphere of culture in the "Humanities," and should not be complicated with technical courses.

2.

The College of the Mechanic Arts now presents but two courses of study—those in Civil Engineering and Mechanical Engineering: in addition thereto, there may hereafter be opened other courses or "departments," e.g.

1. Mining Engineering.
2. Metallurgy and Assaying.
3. Architecture.
4. Mechanical Drawing.

3.

The College of Agriculture may, in progress of time, give room to such specialties as:

1. Agricultural Chemistry.
2. Horticulture and Pomology.
3. Arboriculture.
4. Stock-breeding, &c., &c., &c.

4.

The Colleges of Law and Medicine named in the statute, will of course be organized in due time. A good Secondary Education, including at least the Latin language, should be the minimum prerequisite to admission.

5.

There may be established a COLLEGE OF PURE AND APPLIED SCIENCE, with departments of

1. CHEMISTRY AND PHYSICS.
2. GEOLOGY AND MINERALOGY.
3. BOTANY AND ZOOLOGY.
4. ASTRONOMY AND PHYSICAL GEOGRAPHY.
5. VETERINARY SCIENCE.

6.

There may also, circumstances favoring, be opened, at length, COLLEGES *or* DEPARTMENTS of

PUBLIC HEALTH,
COMMERCE,
EDUCATION,
MILITARY SCIENCE,
DOMESTIC ECONOMY,
FINE ARTS.

APPENDIX A 1.

Extract from the annual report of Dr. Barnard, President of Columbia College, New York, for 1871.—p. 28.

"Taking the whole country through, the number of undergraduate students in all the Colleges, is less at the present time, in proportion to the entire population, than it was thirty years ago, *nearly in the ratio of two to one.* From New England, where Collegiate education has always been more highly in favor than anywhere else, the number of undergraduate students sent to the Colleges within and without New England is not greater by one hundred in all at this time, than it was in 1838. It is even considerably less, if we leave out Harvard University; an institution which has received within the last few years, a rapid and surprising increase of numbers, as an apparent consequence of having abandoned the distinctive features of the Collegiate system of instruction, *i. e.* the invariable curriculum of study."

APPENDIX A.

Professor Henry S. Freize, in his annual report as acting President of the University of Michigan for the year 1870, remarked:

If a genuine University is ever to exist, either here or anywhere else in America, it is to be built upon a much higher scholarship in the preparatory schools and Academies. They must be advanced to the character of gymnasiums and must do a *large part of the work* of our Colleges before a University shall be possible. * * * One public high school of this State, at the close of the present year, has sent into our academic department a class of thirty-five students well prepared. The high schools of this State in general are yearly coming into more mutual relations to the University, and sending increasing numbers to its halls. If the University and the local school authorities shall co-operate in elevating and multiplying the courses of study, and in arranging them as parts and grades of a connected and progressive system, it will manifestly be but a work of time to bring up the best and most enterprising of these seminaries to the position of gymnasiums, and to the level of attainment which we so desire to realize, and thus in the end it will be possible for the University to drop its elementary teaching, and to do its proper work.

President Barnard, of Columbia College, [See Annual Report, 1871, p. 44.] speaking of the Academies of the State of New York, says—

"But many of these are schools of very superior merit and efficiency; and these are doing, at the present time, a great part of that work of disciplinary education which has been so much insisted on as being the proper work of the Colleges. It is by these schools that the Colleges are principally fed, as in Germany the Universities are fed by the gymnasia; and it is to be presumed that, in progress of time, by the strengthening and elevation of both, these two classes of institutions, thus independent of each other but still intimately related, may create upon this continent a system of superior education, practically parallel with that of continental Europe."

Appendix B.

The following is merely a representative,—by no means an exhaustive—list of institutions which introduce optional (or select) studies *or* courses of study at the close of the second or Sophomore year.

The University of Michigan,
The College of New Jersey.
The Cornell University,
The Rensselaer Polytechnic Institute,
The Agricultural College of Iowa.
The Agricultural College of Maine.
The Massachusetts Institute of Technology.
Yale College.
Brown University.
Rutger's College.
The University of Wisconsin.
The University of Nebraska.
The University of California.
The University of Pennsylvania.
Vassar College.

Professor S. Edwards Warren [See notes on Polytechnic Schools, p. 14.] referring to a list of 23 of the principal Polytechnic Schools of the country, says—

"By now comparing the professed objects and actual results, of at least the more well developed of the institutions named in the table, with the foregoing principles, we learn, that, at least in their two or three upper years, they are strictly and fully *professional schools*. For Civil, Mechanical, Topographical and Mining Engineering, Physical and Chemical Technology, and Architecture, are not taught in them merely to discipline the mind, or to qualify one to participate in the intercourse of polite society. * * * These great subjects are taught, principally, as elevated scientific and practical *professions*, that is, as means of gaining ample and honorable employment, and of ennobling the state, by the application of fruitful principles of science to the beneficent arts of peace.

The same author suggests (p. 43.) "That the professional rank of the technical schools should be unobscured, the more fully developed among them, so far as they desire to do their own preparatory training, might well resolve themselves into a distinctly pronounced *twofold general organization*, the first department of which should be of a Collegiate character, and adapted to the earlier wants of youth seeking a finished scientific education: its second department embracing any proposed number of strictly professional schools, managed exclusively as such, in respect to matter of instruction, and tone of administration.

Appendix C.

President Angell, of the University of Michigan, in his inaugural address, 1871, thus speaks of the need and the feasibility of dropping the Freshman and Sophomore years from the University to the preparatory schools :

"If now we are to lift the grade of University work, we must lift the grade of preparatory work, and receive our students only at a more advanced stage of learning than they at present reach, before entering the Freshman class. I learn from the interesting report of President Frieze that the average age of the students who are admitted here is very nearly that of the University students of Germany.

Could they thoroughly accomplish the collegiate work of the first two years before commencing here, we might make their course compare favorably with that of the German Universities.

Now the addition of the first two years to the preparatory course would be no greater advance upon the present work of the schools than has actually been achieved since the beginning of the century. Already there are not a few schools in the country which can give, and would gladly give, the instruction of the Freshman year. The time is not distant when the better and stronger institutions can safely push up their requirements for admission to the standard now reached at the beginning of the Sophomore year, and I am confident that the day is not very remote when they can secure yet higher attainments. The teachers of academies and high schools are generally more than willing to do their part in accomplishing the result, since the character of their work and the tone of their schools is thereby necessarily raised.

So far as I have observed, this enlargement of preparatory work is easily attainable, and is even more necessary in the scientific than in the classical department of our Colleges. The mathematical course at least up to trigonometry, the elements of physiology, botany and physics, some help in French, and a year's study or more in Latin, may now be furnished in many high schools in New England and, I doubt not, in many schools in the West, * * * *

To secure this elevation of our work there must be the heartiest co-operation of the University and the schools. It would have been a happy completion of the public school system of the State, if an organic connection, like that between the German Universities and the gymnasia had been established. But there may be such a virtual if not a formal connection, and to accomplish this end the University should spare no efforts.

It must be confessed that generally the schools in this country are quite as ready to furnish the advanced instruction as Colleges are to insist on it with vigor, as the indispensible condition of admission. The courage of most College Faculties or Corporations wavers, when a considerable number of applicants for entrance are about to be cast off by a new rule. Of course good sense must be used in deciding how fast and how far the standard shall be raised. But the courageous course now as in other matters is often the best rewarded. As a rule the Colleges whose classes are increasing most rapidly, are those whose requirements for admission, and whose scale of work is highest. The better and more aspiring students justly conclude that from such institutions they shall receive the most benefit. Certain it is that the best interests of the University and of good learning requires us to make increasing, earnest, and judicious efforts to push the work of the preparatory schools to a higher and higher plane."

Appendix D.

From a "Report of the Committee on Organization," of which Rev. W. W. Washburn was chairman, made May 7, 1869:

Page 6, "We would, therefore, have all special training preceeded by a course of study of wider scope, thus laying the foundation of a general scientific and literary culture. These general courses may *vary in length*, to meet the requirements of different classes of students. For those who desire to reap to the fullest extent the advantages of college training * * there should be organized courses consisting of language, science, philosophy, &c., extending through the four years. But we would allow those who have not the time nor inclination for this extended course in general study, to enter upon that relating to their chosen profession or pursuits, at such a time as may be necessary in order to secure its completion *within the four years.*"

Page 14. The Committee recommend that the first two years of the course in Agriculture and the Mechanic Arts, "coincide with the scientific course of the Department of Literature, Science, and the Arts;" and that the last two years be devoted to special studies.

Page 36. The Committee recommend that the sexes recite together in the Preparatory Department," and add, "Perhaps their recitations in some studies would be common through the Freshman and Sophomore years."

Appendix E.

A Resume of Bylaws adopted by the Board of Regents, July 12th, 1872.

CHAPTER I.

Of the Department of Elementary Instruction.

Article I. Of the Latin School; prescribes the length of course (one year), and the requisites for admission; viz. Reading, Writing, Spelling, Practical Arithmetic, Local Geography, and Introductory Grammar.

Article II. Of the Collegiate Department; prescribes, §. 1. the length of the course (4 years); § 2, the studies; §§ 3, 4, and 5, the courses of study (see announcement for 1871-72) and choice to be made at time of entrance; § 6, Requisites for admission; Reading, Writing, Spelling, Arithmetic, and Elementary Algebra. U. S. History, and English or Latin Grammar; § 7, The issue, to students who may have been *passed* upon any study, of a Certificate, and to those who may have completed a *course*, of a Final Certificate.

Article III. Of the Faculty of the Department of Elementary Instruction: Consists of the President *ex-officio*, with casting vote, of professors and assistant professors employed in and for the Department, and of such other professors and assistant professors as may be detailed for duty in the Department, by the Board of Regents, or in their recess by the President of the University. Professors have *two votes*, assistant professors one.

Art. IV. Of the students of the Department of Elementary Instruction; prescribes; § 1, That each file an application in given form before Registry; § 2, the payment of "incidentals" before Registry; § 3, form of "student's cards;" § 4, that students absent for six consecutive days be dropped from the rolls; § 5, three recitations for five days in each week, besides exercises in Drawing, Millitary Tactics, Elocution, Composition, &c.; § 6, Punishments; Demerits, Warnings, Suspensions, Expulsion, and Reduction to the ranks in the Millitary Corps; § 7, excuses to be filed for every absence on the following morning, before admittance to any recitation.

Article V. Of the Routine of the Collegiate Department; § 1, divides the year of 40 weeks, beginning on the 1st Tuesday of September, into 3 terms of 16, 15 and 9 weeks respectiveiy; § 2, requires all students to attend the morning chapel; § 3, suspends work on legal Holidays; § 4, fixes amount of "Incidentals" ($6.00 @ year); § 5, requires all male students to drill unless excused by the Faculty and authorizes those who intend to complete a course to wear the uniform. Millitary appointments are made by the President, upon recommendation of the Professor of Millitary Science, with the consent of the Faculty; § 6, appoints the regular examination of Candidates for admistion on the first day of the first term, in the Assembly Hall of the University at 9 A. M.; § 7, requires examinations to be held at the end of each term—any person admitted to them; § 8, prescribes the system of marking recitations and examinations; § 9, "demerit system.

CHAPTER II.

Of the College of Agriculture and the Mechanic of Arts.*

Art. I. Of the Agricultural Divison prescribes: § 1, the scheme of studies (see announcement for 1871—72); § 2, the length of course—2 years; § 3, the requisites for admission—for candidates for degree of Bachelor of Agricultnre the Scientific Course of the Collegiate Department, but any person competent to receive instruction allowed to attend the classes.

Art. II. Of the Mechanic Arts Divison, prescribes; § 1, courses of study, *Civil Engineering*, *Mechanical Engineering*,—Scheme of studies (see announcement for 1871—72); § 2, length of course, 2 years—same terms and recesses as in Collegiate department; § 3: requisites for admission—the Scientific course of the Collegiate Department; § 4, degrees of C. E. and M. E., given to those students who complete a course—but any person competent allowed to join classes.

Art. III. Of the Faculty of the College, &c.: § 1, Composition and regulations of this Faculty analagous to that of the Collegiate Department; § 2, merits of students to be ascertained from examinations only; § 3, Punishments to be warnings, Suspensions, Expulsions.

CHAPTER III.

Of the College of Science, Literature and the Arts.

§. 1. fixes length of course—2 years,—and gives plan of studies and courses(see announcement for 1871—72). Two required studies and one elective the rule. Merits ascertained by examinations only; § 2,Terms and recesses the same as those of the Collegiate Department.—Requisite for admission to full standing, the appropriate conrses of the Collegiate Department, or a successful examination in equivalent studies—Elective studies to be selected within three days from the beginning of the term; § 3, Degrees of B. A. B. S. and B. L., to students completing a course satisfactorily, but any person competent allowed to join classes; § 4, Punishments; Warnings, Suspensions, Expulsion; § 5, Faculty—composition and regulation, analagous to that of Collegiate Department.

CHAPTER IV.

Of the College of Law and Medicine,—(not organized.)

CHAPTER V.

Of the officers of the University, &c.

§ 1, Engagements of officers terminable by either party, upon giving seasonable notice. Absent officers to give notice to the President of the Board of Regents. All officers required to suppress disorders; § 2, President of the University required to publish the Annual Calendar, to approve bills and accounts of incidental expenses, to have charge of the Library, to communicate information to any faculty, unless by him deemed inexpedient, to arrange with the assistance of the several Faculties the programme of studies and exercises, to forward to the Board of Regents all official communications from officers and students; § 3, Professors to have general superintendence of their respective departments and to be responsible for the successful management of them, to select text-books; assistant professors and other instructors to be responsible for the order and progress of their classes—the duties of cognate departments to be so distributed as to give all instructors equal employment, as nearly may be, according to rank—the professors to make an annual report; § 4, The *General Faculty* consists of the President *ex-officio*, and all professors and assistant professors. The President has a casting vote only; professors have two votes, assistant professors one. The duty of the general Faculty —to consider all matters proposed by the President or the Board of Regents and to advise whatever may seem advantageous—to regulate all organized societies and clubs, and to prescribe the manner and rules of all examinations; § 5, No society to be deemed organized until its Constitution and By-laws shall have been approved by the General Faculty—lists of officers to filed in the President's office—President to designate rooms to be used and may hold officers responsible for damages. No meetings of students other than those of authorized societies to be held without leave.

CHAPTER VI.

Repeals all previous legislation inconsistent with the foregoing.

APPENDIX F.

From Whewell on University Education in England, pp. 76, 77.

"The continued superintendence and control which direct College teaching, implies, are most easy and natural in the earlier part of the pupil's residence in the University. I should judge it desirable that the two first years of his career were employed in this kind of study, and I think it would be a great advantage if no University examinations,

*By virtue of an act of the Legislature, approved February 29th, 1872, the College of Agriculture and the Mechanic Arts was separated into

THE COLLEGE OF AGRICULTURE and

THE COLLEGE OF THE MECHANIC ARTS.

compulsory or emulous, disturbed the even tenor of this course of instruction. * * *

"After two years spent under the influence of College rules, I conceive the student might, with advantage, be given over to the motives and employments which the University offers. * * *

"After this, the forward student would be prepared for the highest exertions and the widest speculation, for competitions and professorial lectures; while the slow learner would have exhausted all that could easily be communicated to him directly, and might be well employed in preparing for the final examination; * * *

"It would be quite consistent that this, the University period of the student's career, should be opened by a previous examination fitted to ascertain that he was in the state of proficiency which the system proposes.

"I give this sketch merely with a view of pointing out the mode in which the University and College systems may be combined, and the great inconveniences avoided, which may arise, and have arisen, from their conflicting tendencies: by no means intending to offer it as a scheme of which the details are matured. But this, or somethiug of this kind, is, I think, a plan well worthy the notice of all English Universities."

3 0112 105731381

Resolved, That after a full consideration of the objections urged against the plan of organization of the University, and the answer thereto, it is the judgment of the Board that it is not expedient to make any radical change or modification in the settled policy of the University as heretofore fixed by the Board.

A true copy.

(Attest) A. A. HARWOOD,
Recording Secretary.

St. Paul, July 16th, 1872.